

ABSTRACT

A two part signal acquisition process includes a parallel signal detection process and signal verification/false alarm rejection process. A massively parallel architecture of acquisition correlators search a large region of the time-frequency uncertainty during the parallel signal detection process to identify the most likely detections for each search dwell.

- 5 Concurrent with the parallel signal detection process performed by the acquisition correlators, the current list of most likely detections is examined with additional search dwells in the verification/false alarm rejection process. The verification/false alarm rejection process is performed by a plurality of independent correlators or tracking channels. Under software control, the tracking channels perform repeated dwells on the most likely detections until they
- 10 can be dismissed as false alarms or verified as the desired signal.